

1939

1939-1940 Extension Service Annual Report

Clemson University Cooperative Extension Service

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Progress Report of Extension Work

1939-1940

The Extension Service has continued to assist the farm people of South Carolina in their efforts to improve their farm and home conditions to meet the rapidly changing agricultural and economic conditions. The demand from farm people for demonstration work to show the practical solution of problems confronting them has taxed the extension workers' capacity. This fact emphasizes the need that exists among South Carolina farm people for further scientific leadership and guidance to assist them in adjusting their agricultural and home programs to meet their needs through long-time planning for greater security and a more satisfying home life.

Organization: The director of extension is responsible directly to the president of the College and is administratively in charge of all agricultural extension work in the state, including home demonstration work and Negro extension work. The state home demonstration agent is in charge of, and responsible to the director for, all home demonstration extension work in the state, including Negro home demonstration work. Negro men's work is in charge of a district agent who is also responsible to the director.

The Extension Service has continued its service to farm people through the various departments in the year 1940 in very much the same way as in 1939, which may be seen in more detail by the accompanying report for the year 1939. However, there are three main lines of work that should be mentioned more specifically: Namely, 1. The mattress program; 2. The better farm living program; and 3, The rural electrification program.

Among the new responsibilities of the Extension Service is the organization and supervision of the cotton mattress program which is making it possible for each needy farm family whose gross income is less than \$400, to get a mattress

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and thereby reduce the surplus of cotton. In the relative short time between March of this year when this work was started and August 10, the Extension Service organized the mattress program in 361 communities served by 102 mattress making centers in 31 counties with 303 volunteer local men and women leaders assisting and supervising farm people in making these mattresses. Through August 10, 15,116 mattresses have been made by farm families of the state. Out of 78,080 families making application 71,971 have already been certified for mattresses. Application has been made by the Agricultural Adjustment Administration, which is cooperating in this program, for 7,374 bales of cotton.

The Extension Service inaugurated this year a better farm living program in which farm families may enroll who produce 75 percent of their food and feed requirements. Assistance is being given the Extension Service by the Agricultural Adjustment Administration in making farm surveys to obtain information which will serve as a basis for educational work to encourage deficit families to produce their food and feed requirements. The better farm living program is open to all farm families in South Carolina.

Definite progress has been made in rural electrification in South Carolina during the past few years. Only during the past year, however, has the state's development program in electrification been able to go forward with the rapidity satisfactory to farmers of the state. The Extension Service not only assisted farmers in the organization of 20 rural electrification cooperatives but also is assisting farm people in a program of proper utilization.

Prior to July, 1940 there were 2,700 miles of rural cooperative lines energized serving 8,100 customers. Since July allotments have been made for 877 miles to serve 3,349 customers. Additional applications are now in Washington for 1,112 miles for 3,288 members and pre-allotment work is complete on 2,125 additional miles for 6,375 members, and in addition to this 1,200 miles more is under survey. When this

schedule is complete 9,484 miles will have been energized serving 29,556 farm families. Twenty-four hundred miles of this total was taken over from the State Authority.

But the mere construction of lines is only a step toward an ultimate goal which includes:

1. To have rural lines built into every community of the state, serving as many farm homes as possible.
2. To have safe and practical wiring for all farm homes taking electric service.
3. To have all farm families make a wise and economical use of electricity in order to increase the farm income and raise the standard of living.

The Extension Service realizes that the accomplishments, in all of its many activities, could not have been made without the interest, the industry and the full determination on the part of those living on the land to avoid the pitfalls that lie ahead.

Outstanding among the more definite extension achievements of the year is the notable trend toward the willingness of farm people to return to the principle of self-help. Not only has the Extension Service succeeded in reaching an increasing number of people, but the accomplished results show definite and progressive gains in the application of extension work among those reached.

Extension work extended into every rural community in the state. In one form or another, the work of the Extension Service has been brought to the attention of every farm family in South Carolina. The outstanding achievements in this work for 1939 are briefly summarized in the accompanying report of the various divisions of the Extension Service.

HIGHLIGHTS OF EXTENSION WORK

Introduction

A review of agricultural progress in South Carolina during the past 10 years, 1930-1940, reveals that the farmers have made marked advancement in adjusting the agriculture of the state to meet the economic changes that have taken place during this period.

Some of the most outstanding examples of the progress that has been made in adjusting the agriculture of the state during the past 10 years are listed as follows:

1. South Carolina farmers during the 10 years since 1930 have continued to increase their yields of lint cotton per acre and at the same time improve the length of staple and quality of lint cotton produced. The average yield of lint cotton per acre has increased from 182 pounds for the three-year period, 1928- 1930, to 322 pounds per acre for the three-year period, 1938-1940, an increase of 77 percent in average yield per acre in 10 years. In only three years since 1927, namely: 1932, 1934, and 1938, has the yield of lint cotton per acre on South Carolina farms been lower than the yield of the preceding year. The 1940 average yield of 375 pounds per acre is the highest ever recorded for the whole state, and was the second highest average yield produced in any major cotton-producing state.

In 1930 South Carolina farmers produced 835,963 bales of cotton on 1,973,228 acres of land, while in 1940 they harvested 849,982 bales from 1,176,990 acres of land, the net result being an increase in production of 14,019 bales of cotton on 796,238 fewer acres of land.

In 1940 South Carolina farmers produced cotton at a lower average cost per pound than did the farmers of any other major cotton-producing state.

In 1929 only 36.7 percent of the lint cotton produced on the farms of the state was of a staple 15/16 inch or longer, while in 1940 a total of 97.1 percent of all lint cotton produced in the state was of a staple 15/16 inch long or longer, and 72.7 percent was of a staple one inch long or longer.

2. Tobacco yields on South Carolina farms increased from an average of 715 pounds per acre during the three-year period, 1928-1930, to an average of 957 pounds per acre for the three-year period, 1938-1940, an increase of 242 pounds per acre, or 34 percent. As a result of improved production and curing practices, the quality of South Carolina tobacco has also shown a marked improvement during this 10-year period.

3. The acreage of food, feed, and soil-building crops has shown a substantial increase since 1930. The acreage and production of oats increased from an average of 334,000 acres and 7,658,000 bushels for the three-year period, 1928-1930, to an average of 454,000 acres and 11,018,000 bushels for the three-year period, 1938-1940, an increase of 120,000 acres and 3,360,000 bushels of oats per year. South Carolina now produces more oats than any Southern state east of the Mississippi river.

Corn acreage and production increased from an average of 1,493,000 acres and 22,454,000 bushels per year during the three-year period, 1928-1930, to an average of 1,779,000 acres and 25,508,000 bushels per acre during the three-year period, 1938-1940, an increase of 286,000 acres and 3,054,000 bushels per year over the base period, 1928-1930.

The acreage of all hay, sweet sorghums for forage and corn for silage in South Carolina increased from 315,000 acres in 1934 to 718,000 acres in 1940, or more than double. The acreage and production of tame hay increased from an average of 393,000 acres and 331,000 tons per year during the three-year period, 1928-1930, to an average of 666,000 acres and 517,000 tons per year during the

three-year period, 1938-1940, an increase of 186,000 tons per year, or 56 percent over the base period, 1928-1930.

4. The acreage and production of wheat, practically all of which is grown for home use, was more than trebled during this 10-year period. From an average of 57,000 acres and 702,000 bushels per year for the three-year period, 1928-1930, the acreage and production increased to an average of 195,000 acres and 2,291,000 bushels per year for the three-year period, 1938-1940, an annual increase of 138,000 acres and 1,589,000 bushels over the period, 1928-1930.

5. The number of hogs on South Carolina farms increased from an average of 444,000 per year for the three-year period, 1928-1930, to an average of 604,000 per year for the three-year period, 1938-1940, a yearly increase of 160,000 head, or 36 percent over the base period, 1928-1930. The number of farms reporting hogs increased from 75,632 in 1930 to 104,230 in 1940.

In comparatively recent years South Carolina hogs sold on the large terminal markets of the northeastern cities as "soft" or "southern" hogs, at one to two cents below the market price. However, as a result of feeding and marketing demonstrations, the farmers of the state are marketing hard hogs which bring the top of the market price. Cooperative shipments of hogs have, as a result, increased from 16 carloads in 1927, which brought approximately \$30,000 to 1127 carlot equivalents in 1940, bringing a return of \$806,391.30.

6. Notable in the record of progress is the improvement made by farmers in the milk production from dairy cows on the farms of the state. The average yearly milk production per cow has increased from 273 gallons in 1919, to 378 gallons per cow in 1934, and to 413 gallons per cow in 1939, making a total yearly increase of 140 gallons per cow, or 51 percent since 1919. A survey made by county agents showed a total of 1207 purebred dairy bulls in use on South Carolina farms in 1940.

The number of farms reporting milk cows increased from 68,176 in 1930 to

87,730 in 1940, an increase of 19,554 farms, or 29 percent.

7. The number of all cattle on South Carolina farms increased from an average of 271,000 during the three-year period, 1928-1930, to an average of 357,000 during the three-year period, 1938-1940, an increase of 86,000 head or 32 percent. A survey by county agents showed that 1077 purebred beef bulls were in use on South Carolina farms in 1940. Noteworthy progress has been made in improving the quality of beef cattle produced during the past 10 years. Cooperative sales of beef cattle in 1940 brought farmers a return of \$243,706.

8. The development of commercial peach production made rapid progress during this 10-year period. Carlot shipments of peaches increased from 23 cars in 1923 to 747 cars in 1930 and to over 4,000 carlot equivalents in 1940, which gave growers a return of \$2,080,000. Peach trees in commercial orchards of the state increased from less than one-half million in 1931 to almost four million trees in 1940.

9. Since 1935 the production of quality sweet potatoes has been revived as a cash crop on South Carolina farms. In 1936 twelve cars of improved Porto Rico potatoes were shipped from the state. In 1937 the number of carlot equivalents increased to 179; in 1938 to 562; in 1939 to 822; and in 1940 to approximately 800 carlot equivalents which brought farmers over \$300,000.

10. The inauguration and development of rural electrification cooperatives has hastened the spread of electric service to the farms of the state. In 1935, only 650 miles of rural electric lines were in operation. The first rural electrification cooperative was formed in 1938, and since that time 20 additional cooperatives have been formed, and 9057 miles of rural lines built, reaching 27,251 farms. It is estimated that over 35,000 farms in the state now have electric service from high lines. During the period, 1935-1940, South Carolina made the third most rapid expansion in rural electrification among all the states in the United States.

11. The Extension Service has cooperated with the Soil Conservation Service in advancing the program of Soil Conservation on the farms of the state. Since 1935 a total of 201,078 acres of farm land has been terraced with power equipment on 5,007 farms, and terraces have been constructed on 29,013 acres of land with farmer-owned equipment.

Since 1938, 12 soil conservation districts have been organized, including 31 counties in which soil erosion is a problem, and on December 1, 1940 a total of 3,914 farms, including 672,242 acres had been placed under district agreements.

12. During the period, 1937-1940, over 60,000,000 tree seedlings were planted by South Carolina farmers with the cooperation of various agencies in the program of reforestation and soil conservation.

13. The use of ground limestone to correct soil acidity has made a rapid increase in the past several years. A total of 202,978 tons of limestone was placed with farmers through AAA grants of aid and otherwise in 1939 and 1940. In 1940 county agents submitted 5,920 soil samples to South Carolina Experiment Station laboratory to be tested for soil acidity.

14. Marketing outlets and facilities have been made available for the main products of diversification for sale by the farmers of the state, including livestock, poultry, dairy products, fruits, truck crops, and others. Seventeen county cooperative livestock marketing associations have been organized by farmers since 1937. In addition 18 livestock auction markets have been established. Cooperatives and auction markets have also been located at strategic points to handle fruits, vegetables, and other products. Daily markets for poultry and eggs have been established in many counties. The South Carolina Certified Seed Growers' Association was formed in 1940 to certify seed produced for sale by farmers.

A total of 9211 cars of fruits and vegetables with a market value of

\$4,005,672 received federal-state shipping-point inspection under the supervision of the Extension Service Division of Markets in 1940, as compared with 3223 cars in 1930.

The Extension Division of Markets, working through the county agents, acts as a clearing house for miscellaneous surplus farm products, working to establish contacts between farmers having such products for sale and buyers both in and out of the state who are in the market for such products. The value of surplus farm products marketed by the Extension Service in 1940 amounted to \$4,734,971.91.

The agriculture of South Carolina is definitely in a state of transition and adjustment, as is shown by the foregoing facts. The farmers have far to go in developing an economically sound diversified agriculture that will provide an adequate standard of living for all the farm population, including landowners, tenants, sharecroppers, and wage hands.

Organization and Personnel

The administrative headquarters of the South Carolina Extension Service is located at the Clemson Agricultural College, Clemson, South Carolina, which is the land-grant college of the state. The home demonstration branch of the service has headquarters at Winthrop College, Rock Hill, South Carolina, and Negro extension work has headquarters at the State Negro College, Orangeburg, South Carolina.

The director of extension is administratively in charge of all agricultural extension work in the state. The director of extension is assisted in administration of the agricultural extension program by two assistants and three district agents. The field forces consist of 35 extension specialists, representing the most important lines of agriculture in the state; 46 county farm agents, one in each county; and 20 assistant county agents, who are located in the counties having the largest number of farmers.

The state home demonstration agent is assisted in the supervision of the home demonstration extension program by an assistant state home demonstration agent and three district agents. The field force of the home demonstration service consists of seven specialists, 46 home demonstration agents, one in each county, and six assistant home demonstration agents.

The staff of Negro workers is composed of a Negro district agent, who supervises the work of the Negro agricultural agents, and a Negro supervising agent for the Negro home demonstration agents. The field force includes 19 Negro agricultural agents and 16 Negro home demonstration agents.

The Extension Program of Work For 1940

The extension program of work for 1940 was directed toward the continued adjustment and improvement of the agriculture and farm life of the state. The main objectives of this program are listed as follows: (1) The further development of a diversified agriculture on an economically sound basis that would adequately supply the food and feed requirements on the farms of the state and at the same time provide supplementary sources of farm income to that received from the main cash crops; (2) the training of farmers to become expert in the production, standardization and marketing of their products in order that they may operate their farms economically and efficiently and be able to meet competition from other production areas; (3) the establishment of adequate market facilities for the products grown on the farms of the state; (4) the training of boys and girls and young men and women on the farms of the state in agricultural and farm home knowledge and skills, and in the principles of citizenship and clean healthful living; (5) the training of farm women in methods of efficiency pertaining to matters of the farm home; and (6) assistance in the educational work necessary to acquaint farm people with the functions of other governmental agencies created to help them with specific problems.

One of the basic and fundamental methods of extension teaching is through demonstrations conducted with farmers, farm women, and farm boys and girls on the farms and in the homes. These demonstrations fall into two classes: (1) The method demonstration, in which farm men, farm women, or farm boys and girls are taught a farm or home practice by being shown how to do it; and (2) the result demonstration, in which a farmer, farm woman, or farm boy or girl using recommended methods and practices carries a farm or home enterprise through from beginning to end, keeping records to show whether or not such methods or practices are applicable on a farm or in a community and whether or not the use of such methods and

practices will result in more efficiency of effort, improved yields and quality, cheaper production, better living conditions, and many other factors which will increase farm income and improve farm life.

Results From the 1940 Program of Extension Work

Field Activities

During 1940, county farm and home demonstration agents in cooperation with 6,288 voluntary county and community leaders, conducted organized extension work in 1,934 communities of the state. These agents made a total of 89,519 farm and home visits, reaching 50,753 different farms and homes to assist with farm and home problems.

County farm and home demonstration agents received 592,175 office calls and 147,211 telephone calls from farm people, who requested information and assistance. These agents held 31,898 meetings which were attended by 848,408 farm people, and conducted 13,762 result demonstrations in improved farm and home practices.

The Agricultural Conservation Program

The Extension Service continued to render all possible assistance to the Agricultural Adjustment Administration, and to the state, county, and community committees in handling the AAA program to the best interest of the farmers.

During 1940 county agents, and assistant agents, spent 2,204 days, or an average of 10.9 percent of their time in AAA work. These agents held 1,033 educational meetings on the AAA program, which were attended by 39,000 farmers; and 317 training meetings were held for committeemen. Farm visits totaling 2,231 were made by the agents; 1,157 news stories were published; 1,654 circular letters, and 47,980 personal letters were written to farm people; and 622,440 farm people called at the agents' offices for information on the program.

The Better Farm Living Program

Notwithstanding that progress has been made with previous attempts to get farm people to produce more of their food and feed supply, a more comprehensive program has been developed by the Extension Service to locate each farm family with deficiencies and to encourage them to produce an adequate supply of home grown food and feed.

Through repeated conferences which began in 1938, in which county agents, home demonstration agents, supervisors, specialists, and leading farm men and women participated, the ground work of the plan was developed. Extension publications applicable to such a program were revised, simplified, and brought up to date, and new material of this kind was prepared where needed. Other methods of extension teaching were developed or adjusted to fit the approach, and plans to project the program were definitely made.

In the spring of 1940, through the cooperation of the Agricultural Adjustment Administration, a survey was made by AAA committeemen of 130,660 farm families to determine the extent to which each family was producing its food and feed needs such as corn, wheat, vegetables, sweet potatoes, Irish potatoes, syrup, hogs to kill, milk and milk products, poultry and eggs, and improved permanent pastures. This survey was made when performance was being checked on farms in the AAA program.

The data obtained from this survey were tabulated in the county agents' offices on a county basis, and, then on a state basis, and showed that the following listed percentages of the farmers of the state produced less of these food and feed items than they needed on their farms for an adequate supply of food for the family and feed for the livestock: Corn, 29.5; wheat, 81.1; vegetables, 55.4; sweet potatoes, 55.5; Irish potatoes, 76.5; syrup, 80.2; hogs to kill, 54.9; milk and milk products, 41.2; and improved pastures, 94.4. This summary also showed that the following listed percentages of these 130,660 farm families produced none

of these food and feed items: Corn, 5.3; wheat, 62.6; vegetables, 12.1; sweet potatoes, 27.6; Irish potatoes, 52.9; syrup, 69.8; hogs to kill, 16.3; milk and milk products, 32.9; poultry and eggs, 10.2; and improved permanent pastures, 89.8.

In the light of these deficiencies, the Extension Service with the cooperation of farm leaders in each county placed the main emphasis of the 1940 program of extension work on the better farm living program, intended to encourage the production of these items on the farms. Voluntary community committees composed of 3,103 farm men and women were organized in 752 rural communities in the 46 counties. These voluntary workers contacted the individual farm families shown by the survey to be deficient in the production of these food and feed items, in an effort to encourage and assist them in correcting such deficiencies. Through the work of these committees, 1,627 community meetings were held with an attendance of 41,496 farm people; 333 circular letters giving information to these deficient farm families were prepared and mailed by the county agents and home demonstration agents; and 401 news articles were prepared and published.

As a result of the wheat and vegetable phase of the program alone, 10,140 farm families who had not been growing wheat pledged themselves to seed 29,028 acres of wheat, and 9,859 farm families who had not been producing fall vegetables pledged themselves to plant 3,885 acres of fall vegetables in the fall of 1940.

In another approach to the problem of food and feed deficiencies, an effort was made to recognize and call attention to the accomplishments of those farm families who in 1940 produced and conserved at least 75 percent of their food and feed requirements. Through this approach, 2,865 farm families who, when scored on the basis of a standard score card, were shown to have qualified in this program.

Aims and Need for Community Organization

The basic aim of community organization is to develop relationships between groups and individuals that will enable them to act together in creating and maintaining facilities and agencies through which they may improve their community.

The Extension Service, insofar as time and personnel permits, is undertaking to encourage and develop leadership in community organization in each of the 46 counties. Notwithstanding that much measurable progress has been made with respect to the economic phase of agriculture and home improvement, and emphasis should be continued increasingly, there is also a definite need for increased emphasis on the social and cultural development of community life in the state.

Using Surplus Cotton for Mattress Making

Among the new responsibilities of the Extension Service is the organization and supervision of the cotton mattress program which is making it possible for each needy farm family to learn to make mattresses, and to get one or more mattresses and thereby help to reduce the surplus of cotton.

The mattress program was conducted in cooperation with the Agricultural Adjustment Administration, and the following figures show results of the mattress program through July, 1941:

- 14,726 bales of cotton were received.
- 1,076 bales of ticking were received.
- 133,345 were certified to receive cotton mattresses.
- 145,752 mattresses were completed. Of these 54,415 went to white families and 91,337 to Negro families.
- 1,282 communities were organized.
- 4,507 volunteer leaders assisted with the program. Of these, 781 were white men; 1515 white women; 591 Negro men; and 1620 Negro women.

The mattress program alone drew heavily on the time of county farm and home demonstration agents.

Agricultural Economics and Farm Management

Outlook and Economic Information: During 1940, as in the past, county and community outlook meetings were held in each of the 46 counties of the state. Members of the Agricultural Economics Division of the Extension Service, attended and discussed the outlook at meetings in 33 of these counties attended by 4,418 farm people. Following the county outlook meetings, 408 community outlook meetings were held by county agents in 44 counties, with approximately 30,000 farm people in attendance.

Demonstration Records: Records on the following result demonstrations were analyzed in 1940: Cotton, 919; corn, approximately 10,000; tobacco, 81; Irish potatoes, 89; sweet potatoes, 167; sweet potato plant beds, 86; cucumbers, 74; wheat, 173; oats, 176; barley, 69; soybeans, 21; crotalaria, 17; lespedeza, 60; crimson clover, 55. Legumes for soil building included the following demonstration records: Lespedeza, 35, crotalaria, 35. Legumes for hay: Lespedeza, 80; soybeans, 12; cowpeas, 22. Poultry records, 116; hay feeding records, 49.

Results of the analysis of these records were carried back to the farmers by the county agents and specialists to aid them in increasing their incomes.

Agricultural Planning: Agricultural planning which incorporates the democratic participation of farmers and local professional agricultural workers in agricultural planning was conducted in 17 counties during 1940. During this period 12 county agricultural planning meetings were held in which 213 farm people participated. Sixty-two community land-use planning meetings were held in which 308 farm people participated.

Through the operation of this program farmers determine what kind of agricultural cooperation they want from existing federal and state agencies. The Extension Service has the responsibility of leadership in developing and conducting agricultural planning work in the state.

Farm Unit Test Demonstration Project: Data obtained from the farm unit-test demonstration project conducted with Tennessee Valley Authority show that 96 test demonstration farmers in six South Carolina counties applied 125 tons of concentrated phosphates and 1,354 tons of agricultural limestone to 1,597 acres of pasture and legume crops in 1940. The data also show that 4,952 acres of these crops were treated with 436 tons of phosphate in 1939, making a total of 6,549 acres treated with 561 tons of phosphate during the two year period.

Agricultural Engineering

Farm Buildings and Structures: Farmers of the state showed great interest in the farm building plan service developed by the Extension Service, as is evidenced by the fact that in 1940 plans were furnished farmers to construct the following buildings or structures: General purpose barns, 196; dairy barns, 31; hog houses, 167; hog self-feeders, 206; poultry houses, 315; brick brooders, 291; new type sweet potato curing houses, 31; trench silos dug, 73; box silos, 22; number of other farm buildings and structures built according to plans furnished, 577; number of farm buildings and structures repaired or remodeled with assistance or plans from county agents, 858; and number of fire-heated hotbeds built, 129.

Improving Cotton Handling and Ginning: Although South Carolina ranks high with respect to the percentage of rough-ginned cotton, definite progress has been made during the past few years. Four years ago approximately 20 percent of the state's cotton crop was classified as rough-ginned. An intensive campaign has been conducted for the past several years including, demonstrations, posters, circular letters, etc., with the result that for the past two years the average percentage of rough-ginning was slightly less than 8 percent.

Farm Machinery: For the third consecutive year the Extension Service and other college officials cooperated in holding an annual farm machinery school to acquaint farmers with some of the latest designs of farm machinery in both tractor and horse-drawn equipment.

In addition, four tractor schools were held out in the state, with an attendance of 201 farmers. Also, on a county basis, with the extension specialists cooperating, 9 mower clinics were held, with an attendance of 312 farmers. County agents reported 147 demonstrations given on the care and repair of farm machinery, 53 lespedeza harvesting demonstrations conducted, and 89 other farm machinery demonstrations during the year.

Rural Electrification Rapidly Spreading: Although South Carolina is still below the national average in the percentage of farms receiving high-line service, much progress has been made. From January 1, 1935 to June 30, 1940 South Carolina showed the third highest percentage increase in farm families receiving high-line service, being exceeded only by Mississippi and North Carolina. In the year immediately ahead South Carolina will probably show the highest percentage of increase in the United States because the largest allotment of REA lines were made after June 30, 1940. According to the Public Service Commission of South Carolina, there were approximately 10,892 miles of rural line serving 54,905 rural members on June 30, 1940. Of this latter figure probably 35,000 farm homes are receiving the benefit of electricity.

Soil Conservation: The soil conservation program, in which the Extension Service is cooperating with the Soil Conservation Service, is contributing to improved farm practices and more particularly to soil conservation in the state.

The following listed educational methods were used by the Extension Service in conducting the soil conservation educational program in 1940: (1) State, county, and community meetings, (2) demonstration farms, (3) educational tours, (4) 4-H conservation demonstrations, (5) exhibits, (6) visual aids - motion pictures, film strips, slides, charts, and (7) soils and land-use studies for agents and specialists.

Agronomy

Cotton Improvement Demonstrations: In 1940 a total of 729 farmers, representing all counties of the state, conducted demonstrations in the five-acre cotton contest. During the 14 years of the cotton improvement contest, 7,457 farmers have participated. The South Carolina Five-Acre Cotton Improvement Contest, which is conducted by the Extension Service, has been an important factor in cotton improvement. This contest was started in 1926 when the average state yield was only 152 pounds of lint per acre and only 15 percent of the crop had a staple length of 15/16 inch or better. The yield and staple have steadily increased, until in 1940 the average yield was 375 pounds of lint per acre, and 97 percent of the crop had a staple length of 15/16 inch or better.

Corn, Small Grains, and Hay: During 1940, 624 corn production demonstrations, including 4,260 acres, were conducted by farmers who, through following improved methods, produced an average of 34 bushels of corn per acre, as compared with a state average of around 14 bushels per acre. In small grains, farmers conducted 196 demonstrations in the production of oats, with an average production of 45.8 bushels per acre; 217 demonstrations in wheat, with an average production of 24.4 bushels per acre; and 81 demonstrations in barley, with an average production of 31 bushels per acre.

Production of Legumes for Seed: The production of legumes for seed promises an additional cash income for many South Carolina farmers. This project was encouraged in 1940 when the following results were obtained from demonstrations: Lespedeza, 63 demonstrations, totaling 1,230 acres, averaging 285.6 pounds per acre; soybeans, 25 demonstrations, totaling 307 acres, producing 11.9 bushels per acre; crimson clover, 38 demonstrations, involving 143 acres, producing 216 pounds per acre; and crotalaria, 16 demonstrations, totaling 223 acres, producing 340.6 pounds per acre.

In 1940, the following demonstrations were conducted with small grain and legume mixtures for hay: 23 mixtures, totaling 295 acres, averaging 1.78 tons per acre; 16 alfalfa, totaling 94 acres, averaging 2.1 tons per acre, 89 lespedeza, totaling 885 acres, averaging 1.37 tons per acre; 31 cowpea, involving 297 acres, averaging 1.2 tons per acre; 15 soybean, totaling 117 acres, averaging 1.4 tons per acre; 20 kudzu, totaling 115 acres, averaging 1.5 tons per acre; and 8 lespedeza sericea, involving 59 acres, averaging 1.2 tons per acre.

Permanent Pastures: Much has been learned, as well as demonstrated, on the 204 permanent pasture demonstrations carried on in 32 counties during 1940. These demonstrations represented 3,936 acres of improved pastures which carried 4,016 animal units from early spring until late fall (the days of grazing varied according to the location in the state).

Tobacco Demonstrations Improving Crop: The main educational work of the Extension Service with tobacco growers was the continuation of result demonstration records, showing methods of producing higher yields per acre of a better quality tobacco.

During the year, 81 such demonstrations were conducted by farmers who produced an average yield of 1,282 pounds per acre, compared with an average yield of 995 pounds for the state.

Animal Husbandry

Hog Production on Firm Basis: The hog-feeding demonstrations have been one of the most important factors in putting commercial hog production on a firm basis in South Carolina. The hogs are weighed at the beginning and at the close of the feeding period and accurate records are kept of the feed during that time. In these demonstrations the hogs are fed such feeds as corn or barley, and a protein supplement of tankage, fish meal, or a mixture of these animal proteins with cottonseed meal. These hogs are fed either in the dry lot or on green forage crops such as oats, barley, rye or crimson clover for winter and spring grazing, and green soybeans or pearl millet for summer and fall grazing. Hogs fed in the above manner were found to kill "hard" and are now known as South Carolina demonstration-fed hogs and are marketed as "hard" hogs.

County agents conducted 30 hog feeding demonstrations in 1940, 21 of which were in dry lots, and 9 were conducted as green forage crops.

Cooperative Hog Sales: Cooperative marketing of hogs by the Extension Service has increased from 1,505 hogs and an estimated return of \$30,000. in 1927 to 137,992 hogs in 1939, returning \$1,530,769.71. In 1940, sales were off from 1939 because of low prices and home slaughter; nevertheless 90,154 hogs were sold which netted the farmers \$806,391.30.

Beef Cattle on Increase: Beef cattle is definitely on the increase in South Carolina, as is evidenced by the number of purebred bulls and purebred or grade cows and heifers placed with new producers. As a basis for increasing beef cattle, farmers have made considerable progress in improving permanent pastures and increasing roughage to take care of these cattle. Encouraging, too, is the keen interest taken by farmers generally in the five livestock shows put on each year by the Extension Service in cooperation with farmers. Interest in a better quality of stock is shown by the placing of 244 purebred beef bulls and 1,012 beef cows and heifers in 1940.

Other Work included meat conservation, a part of the better farm living program, assistance to sheep growers, and mule production.

Dairying

Selected Purebred Bulls Help to Improve Production: The use of good production-bred bulls in South Carolina has played a very definite part in the rapid increase in the average production of milk per cow. The production increased more than 50 percent during the 20-year period, 1919 to 1939. South Carolina dairymen continued to take advantage of this method of increasing the profitableness of their herds in 1940. During 1940, 180 purebred dairy bulls were placed with farmers.

Dairy Herd Improvement: During 1940, 79 dairy herds in 25 counties, including 2,617 cows, were enrolled in Dairy Herd Improvement Associations. Accurate records were kept on the production, cost, and returns in connection with these demonstration herds, and the information serves as a basis of extension work with dairymen throughout the state.

Silo and Dairy Barn Construction: County agents reported the construction of 73 trench silos in 1940 with an estimated capacity of 3,760 tons. This brought the number of trench silos in use in the state to 407 with an estimated capacity of 117,443 tons. Twenty box silos with an estimated capacity of 41,443 tons were constructed during the year also. These silos furnish a very economical way to store silage on farms where the soil type is not suited for trench silos.

Dairymen constructed 31 dairy barns during 1940 according to plans and recommendations of the Extension Service.

Marketing Dairy Cattle and Dairy Products: The Extension Service assisted with the marketing of dairy products which returned \$198,521. Cattle sales with which the Extension Service assisted amounted to \$56,707, and purchase of cattle amounted to \$19,283.

Other Work included demonstrations in the growing and curing of roughage, silage production, annual grazing crops, and work with breeders' associations.

Crop Insects and Plant Diseases

Cotton Seed Treatment: County agents estimated that 82,092 farmers planted 827,196 acres of cotton out of the state's allotment of 1,251,315 acres with treated seed. The county agents and specialists have continued to show farmers the benefit of seed treatment and to stress the value of this practice through personal contact, through radio, circular letters and the press. Thirty-three seed treatment record demonstrations were completed during 1940 showing a per-acre increase of 243 pounds of seed cotton per acre.

Boll Weevil Control: In 1940 the state's yield record was again broken with 375 pounds of lint per acre. One of the major factors influencing the yield was the use in 1939 and again in 1940 of the 1-1-1 molasses sweetened poison. A standing committee of extension workers was appointed in 1938, which makes contacts and handles problems connected with making molasses available to farmers. In 1938, 250,000 gallons of molasses were used, and in 1939, 1,105,000 gallons, in 1940, 818,000 gallons.

Beekeeping

During 1940 beekeeping work included demonstrations with county beekeepers' associations, individual farm beekeepers, shippers of package bees, producers of queens, demonstrations in requeening, transferring, and disease control.

As a result of the work of the Extension Service in beekeeping, county agents report 52 requeening demonstrations in 1940, including the introduction of 857 Italian queens. Demonstrations in transferring bees from old box and gum hives into new modern loose-frame hives resulted in 180 such transfers.

Forestry

Woodland Management: There is a definite need for an intensive program in woodland management in South Carolina if its farm forests are ever to contribute their fair share to the farm income. In 1940, 23 demonstration records were kept

by farmers on 3,787 acres of farm woodlands, which showed a net return of \$10,530.73. This gives a net return of \$2.78 per acre.

Selective Cutting: Through following the general procedure planned for selective cutting in 1940, 58 demonstrations were organized in 32 counties. Approximately 1,484,000 board feet of timber were marked for cutting under the personal supervision of the extension forester. Thirty-two meetings were held at these demonstrations attended by 476 farmers. According to reports of county agents, there are now 2,348 landowners practicing some form of selective cutting.

Fire Protection: During the year 31,093 farmers cooperated in fire protection, as reported by county agents, cooperating with the South Carolina Commission of Forestry, which now has 23 counties under organized county protective associations.

Reforestation: According to county agents' reports 2,259 farmers reforested 9,277 acres of land with approximately 10 million trees during 1940. This was accomplished through the cooperative efforts of the county agents, the Soil Conservation Service, and the State Forestry Commission, stimulated by the 1940 AAA program.

Four-H Club Work

Boys' 4-H Club Work: White boys in 1940 conducted 7,022 demonstrations in 4-H club work, submitting 3,784 completed records, or 53.8 percent. Records turned in showed the total value of products grown was \$163,627. Eighteen hundred and thirty-six corn club members grew 1,435 acres of corn with an average production of 30.3 bushels per acre. Five hundred and sixty-seven cotton club members grew 466 acres of cotton producing an average of 577 pounds of lint per acre. Other demonstration records submitted by 4-H club members showed similar progress in other crops, and in the production of livestock.

Four-H Club Camps: During the summer of 1940 4-H club camps were held by every county in the state with 3,426 4-H club boys and girls in attendance.

Girls' 4-H Club Work: The 1940 enrollment of 4-H club girls was 11,173.

Among some of the accomplishments for the year included 34,552 chickens raised; 264,866 quarts of fruits and vegetables canned; 12,838 containers of sweets conserved, 168,807 pounds of products dried and brined; 2,709 bushels of garden products produced; \$3,344 worth of products sold; 4,384 participated in health improvement; 218 pieces of handicraft completed; and 1,420 dresses and 2,841 other garments were made.

Extension Rural Youth: During 1940, 19 counties were engaged in Extension Rural Youth Community Club Work. The number of such clubs ranged from one in most counties to six in one county. There were 26 community clubs with a membership of 317 young men and 316 young women, a total of 633 members.

Horticulture

Home Orchards: During 1940 county agents assisted farmers in conducting nine home orchard demonstrations in which recommended practices as to varieties, culture, pruning, spraying, harvesting, and conserving the fruit were carried out. Records on these home orchard demonstrations show that 8876 fruit trees, produced products valued at \$7,066, with a net profit of \$2,297.

Commercial Peach Production: The fact that only 41 percent of the total trees in commercial orchards of the state were of bearing age on October 1, 1940 indicates that the production trend will be sharply upward. This definite trend prompted the Extension Service to issue timely outlook statements.

In 1923 only 16 cars of peaches were grown commercially and shipped from South Carolina. As a result of the commercial plantings during the following years, the carlot shipments have increased to the equivalent of 4,000 cars in 1940.

The progress made in commercial peach production in South Carolina reflects definitely the work done by the Extension Service over the past 25 years in co-operation with the growers. However, in 1941 growers received disappointingly low prices due to a combination of factors resulting in excessive daily supplies.

Home Vegetable Gardening: Monthly garden letters giving timely advice on the maintenance of a year-round garden have been mailed regularly to thousands of farm people of the state.

Sweet Potatoes: During 1940 the Extension Service continued its program to further develop sweet potatoes as a cash crop on the farms of the state. As a result of demonstration work, the equivalent of between 700 and 800 cars of potatoes were shipped from the 1940 crop with growers receiving top market prices.

Eighty-six sweet potato hotbed demonstrations were conducted in 1940. Of these, 71 were fire-heated and 15 were electrically heated.

Other Truck and Fruit Crops: Demonstration work was also conducted and assistance given to growers in connection with asparagus, cucumbers, cabbage, Irish potatoes, apples, small fruits, and other truck and fruit crops.

Marketing

Cooperative Organizations: The Extension Service gave assistance to farmers in the establishment and conduct of 17 farmer-owned cooperative marketing associations. In addition to aiding in organization work, the Extension Service also assisted these associations with their other problems and has encouraged cooperative purchasing of certain supplies not easily obtainable.

Federal-State Shipping Point Inspection: The number of cars inspected and certified at shipping point in 1940 showed an increase of approximately 400 cars over 1939, and totaled 8,671 cars. The increase was mostly in Irish potatoes, peaches, cabbage, and tomatoes. These inspections, which included approximately 84 percent of the Irish potato movement and 98 percent of the peach tonnage by rail, covered around 50 percent of the total movement of fruits and vegetables from South Carolina. This work, and other means, were used in promoting standardization of fruits and vegetables.

By using an increased appropriation, for marketing, the Extension Service is engaged in expanding the marketing service to farmers.

Poultry Marketing: In 1940 the Extension Service assisted farmers with the sale of poultry and eggs as follows: 1,302,226 pounds of poultry, bringing \$185,598, and 28,410 dozen eggs which brought \$4,895. During the past 18 years the Extension Service has assisted farmers in marketing the following amounts of poultry and eggs: 19,362,414 pounds of poultry for \$3,706,523, and 94,594 dozen eggs for \$16,846, making a grand total of \$3,723,369.

Poultry

Demonstration Poultry Flocks: During the year 1940, 116 demonstration flock records in 38 counties were completed and analyzed. The records show that for all breeds these poultrymen averaged a labor income of \$1.21 per hen. Results of these demonstrations are proving profitable to farmers in pointing out the best practices in feeding, housing, and poultry management.

Turkey Demonstrations: During 1940, 27 turkey demonstrations were conducted under the supervision of county agents including 3,054 turkeys. These demonstrations showed an average labor income above cost of 93 cents per bird.

Disease and Parasite Control: Chicken pox was one of the most common poultry diseases in South Carolina before the vaccination project was started nine years ago. However, the poultrymen have learned to control this disease by vaccination and save themselves losses amounting to thousands of dollars each year. One hundred and thirty-nine vaccination demonstrations were given in 1940 in 25 counties, involving 34,600 birds.

Lespedeza Pulverizing Demonstrations: In 1940, 22 lespedeza pulverizing demonstrations were given at which 392 farm people were in attendance.

High-priced feeds is one reason why a great many people go out of the poultry business, and these lespedeza pulverizing demonstrations were conducted to show farmers how they could use a locally grown product in their poultry feeds.

National Poultry Improvement Plan: The primary purpose of the National Poultry Improvement Plan is to place the poultry business on a sounder basis by identifying, authoritatively, poultry breeding stock, hatching eggs, and chicks with respect to quality by describing them in terms uniformly accepted in all parts of the country. Eighteen hatcheries cooperated in the plan in 1940 with a combined incubating capacity of 544,804.

Records show that 119 flock owners had 26,009 birds in the flock improvement program during the year. Of this number 1,101 birds reacted and 2,448 were culled out. These birds produced 58,365 hatching eggs for sale, valued at \$19,594.

In 1940 eight breeders trapnested about 2,600 birds under the official Record of Performance program.

Poultry Houses and Equipment: During the year 242 farmers followed recommendations in building laying houses; 263 in building brooder houses; 9 in electric brooder demonstrations; 104 in building brick brooders; and 4 in constructing range shelters.

Poultry Work with Home Demonstration Clubs: Poultry work was conducted by the specialists and home demonstration agents with 10,109 farm women in 46 counties last year. Five hundred and forty-three result demonstrations were conducted; 46 meetings at result demonstrations held; 543 method demonstration meetings and 196 other poultry meetings held. During the year 2,389 farm and home visits were made in helping the farm women with their flocks; and 43 home demonstration agents gave 543 poultry demonstrations at home demonstration clubs. The approximate number of hens in flocks of home demonstration women doing poultry work is 330,120, or an average of 33 hens per flock. The approximate income from poultry and eggs sold from these flocks is \$308,110., or an average of \$30.48 per flock.

Publications

The 1940 extension program of educational publications included the preparation, editing, and distribution of two bulletins which were revised, 11 circulars prepared and 5 revised, three information cards, and 12 issues of The Carolina Club Boy were published.

County agents and home demonstration agents prepared 11,362 news stories for publication in county newspapers, and issued 6,635 circular letters to farm people. In addition, 317 radio talks were made, and 216,280 bulletins were distributed. Specialists issued through the publications department 463 news letters carrying spot news and information about agricultural matters to newspapers. Regular weekly radio broadcasts giving agricultural information were made by extension workers over Station WAIM, Anderson. Stations located at other points in the state were also used during the year by specialists and county agents to give information on agricultural subjects.

Visual Instruction

During 1940 the Extension Service used educational motion pictures on crops, livestock, soil conservation, forestry, AAA, rural electrification, home demonstration, 4-H club, and many other subjects in teaching farm people improved methods and practices. These showings were made before 362 audiences, made up of 49,715 farm people. Included in these figures were 29 showings made before statewide and 4-H club groups at camps.

Home Demonstration Work

Extension Work in Clothing: Home demonstration agents, with the aid of the extension clothing specialist, aided 2,077 families follow clothing buying recommendations. Two thousand one hundred and fifty-six women followed recommendations in construction of clothing. Three thousand and eight women and 1,759 4-H girls were enrolled in clothing projects in 1940.

Food Conservation: Home demonstration workers aided farm families in putting up 2,293,340 quarts of fruits and vegetables and 1,561,650 pounds were dried or stored for winter use. Also, 497,279 containers of pickles, jams, jellies and preserves were put up. Home demonstration women and girls canned 101,983 quarts of meat. The estimated value of these canned and stored products is \$751,112.

Food and Nutrition: Assistance was given by the home demonstration agents, and extension nutrition specialist, to 24,852 farm people emphasizing nutrition and better balanced foods. Three thousand one hundred and eighteen 4-H club girls in 17 counties did major work in foods and nutrition.

Extension Work in Home Management: Assistance was given by members of the Extension Service to farm people in 1,362 communities in home management and house furnishings. Some accomplishments are as follows: 2,793 kitchens were improved for convenience; 1,042 installed kitchen sinks; 2,078 added equipment; 1,455 improved the lighting; and 1,360 were rearranged for convenience. Improved storage space was provided by 6,683 families in 32 counties.

Home Marketing: During 1940, home marketing work was done in each county by the home demonstration workers. Actual cash amounting to \$422,744 was added to 15,205 farm family incomes through club markets, and with farm and home agents cooperating in the sales of other farm products.

Negro Home Demonstration Work

Program of Work: Home demonstration work by Negro agents with Negro farm women was conducted in 16 counties. During 1940, 9,457 women and girls were enrolled in home demonstration and 4-H club work. Following are some of the accomplishments for the year: 540 women started year-round gardens; 1,378 home orchards; 70 homes were constructed; 369 homes were remodeled; 153 homes installed electric lights; and 342 families purchased electric appliances. In other projects the following results are shown: 3,458 women and 1,069 4-H club girls improved

poultry practices; 5,098 families made cheese; 48,504 jars of meat were canned; 2,139 families improved home packed lunches; 3,624 families improved storage facilities for food supply; 283,543 quarts of fruit and vegetables were canned; 51,635 jars of jelly and jam; 3,045 dresses and 8,031 other garments were made by 4-H club girls; and 5,351 renovated old garments.

The agents supervised the making of 15,947 mattresses; 33 tours were conducted; 2,498 kitchens were improved; 761 families developed home industries to supplement their income; 6,260 articles of home furnishings and 7,233 articles of handicraft were made by 4-H club girls. In health and sanitation, 472 sanitary toilets were built; 491 homes screened; 2,912 persons improved health habits; 2,246 individuals adopted preventive measures to improve health; and 2,019 destroyed pests and vermin.

Negro Farm Demonstration Work

Program of Work: The program of Negro farm demonstration work consists of educational work to aid Negro farmers to become more self-supporting on farms by producing sufficient food and feed for their requirements.

Agricultural Engineering: In agricultural engineering 34 farmers were assisted in terracing 1188 acres of eroded land; crops were grown on the contour by 122 farmers involving 5,586 acres; gully control was practiced by 56 farmers on 906 acres; 72 farmers drained 3,237 acres; 1,753 farmers followed better cotton ginning practices at 15 different gins.

Farm Buildings: The following were constructed, remodeled or painted: 50 hog houses; 35 poultry and hog self-feeders; 64 poultry houses; 91 brooders; 16 barns; 10 dwelling houses; 11 tobacco barns or meat houses; 26 sanitary toilets; 3 milk cooling boxes; 2 sweet potato curing houses; 3 community houses; 20 buildings remodeled; and 4 dwellings painted.

Agronomy: Negro farm agents conducted the following demonstrations in field